

Claims

1. AM receiver comprising at least one IF filter with a fixed IF bandwidth, **characterized by** at least one downconversion stage (3, 4, 5) to shift the signal input thereto into an IF range (IF1) having a variable oscillation frequency (f_{LO1}) which is adjustable to detune a wanted center frequency (f_C) of a wanted signal part (30) from a center frequency (f_{IF1}) of said at least one IF filter so that an unwanted signal part (31b) adjacent to said wanted signal part (30) lies outside said fixed IF bandwidth.
2. AM receiver according to claim 1, **characterized by** a baseband processing stage (12) which readjusts the detuned IF signal to a predetermined center frequency.
3. AM receiver according to claim 2, **characterized in that** said baseband processing is performed digitally.
4. AM receiver according to claim 1, **characterized in that** a downconversion stage which readjusts the detuned IF signal to a predetermined center frequency.
5. AM receiver according to anyone of the preceding claims, **characterized in that** it is a digital shortwave receiver, in particular a Digital Radio Mondial receiver.
6. AM receiver according to anyone of the preceding claims, **characterized in that** said at least one IF filter is an analogue filter.
7. AM receiver according to anyone of the preceding claims, **characterized in that** said fixed IF bandwidth is 20 kHz.
8. AM receiver according to anyone of the preceding claims, **characterized in that** said unwanted signal part (31b) is detected by analyzing the power of FFT carriers outside the wanted signal part (30), BER fine tuning in a digital baseband processing or during optimization of an Automatic Gain Control voltage.

- 1 9. Method to process a received AM signal wherein the received and
eventually preprocessed AM signal gets shifted at least once into an IF range
(IF1), **characterized by** detuning a wanted center frequency (f_C) of a wanted
signal part (30) from a center frequency (f_{IF1}) used during at least one IF fil-
5 tering with a fixed IF bandwidth so that an unwanted signal part (31b) adja-
cent to said wanted signal part (30) lies outside said fixed IF bandwidth.

10. Method according to claim 9, **characterized by** readjusting the detuned
IF signal to a predetermined center frequency after said at least one IF filter-
10 ing.

11. Method according to claim 9 or 10, **characterized in that** it is used for
digital shortwave reception, in particular Digital Radio Mondial reception.

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